2465, TABERNACLE FAULTS

Structure number: 2465.
Comments: Hecker's (1993) fault number 9-20.
Structure name: Tabernacle faults.
Comments:
Synopsis: Moderately to poorly understood late Pleistocene faults near Tabernacle Hill at the north end of the Black Rock Desert.
Date of compilation: 10/99.
Compiler and affiliation: Bill D. Black and Mike Hylland (Utah Geological Survey), and Suzanne Hecker (U.S. Geological Survey).
State: Utah
County: Millard.
1° x 2° sheet: Richfield.
Province: Basin and Range.
Reliability of location: Good.
Comments: Mapped or discussed by Hoover (1974), Allmendinger and others (1983), Anderson and others (1983), Picha (1986), Smithson and Johnson (1989), Oviatt (1991), and Hintze and Davis (in preparation). Mapping from Oviatt (1991).
Geologic setting: Generally north-trending normal faults (of varying displacement and dip) near Tabernacle Hill in the Black Rock Desert. The faults are part of an extensive zone of late Quaternary deformation and faulting in basalt flows and Lake Bonneville deposits that includes the Beaver Ridge (2464) and Pavant (2438) faults, and Cove Creek dome (2462). Faults in the Black Rock-Sevier Desert basin intersect the Sevier Desert detachment at depths of 2-4 kilometers and may cut the detachment surface (Picha, 1986; Smithson and Johnson, 1989) or may terminate against it (Allmendinger and others, 1983; Anderson and others, 1983).
Sense of movement:
Comments:
Dip: No data.
Comments:
Dip direction: W.
Geomorphic expression: Faults and fractures show minor displacement in the basalt of Tabernacle Hill, which was extruded into Lake Bonneville at or near the level of the Provo shoreline. Although Hoover (1974) measured 15.2 meters of vertical displacement of the flow surface, the flow appears to drape over pre-existing scarps (C.G. Oviatt, verbal communication to Suzanne Hecker, 1988).
Age of faulted deposits: Late Pleistocene.
Paleoseismology studies: None.
Timing of most recent paleoevent: (2) Latest Quaternary (<15 ka).
Comments:
Recurrence interval: No data.
Comments:
Slip rate: Unknown, probably <0.2 mm/yr.
Comments: Minor displacement of late Pleistocene basalt.

Length: End to end (km): 8
Cumulative trace (km): 26
Average strike (azimuth): N9°E

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